

# **AR2500 SERVICE INFORMATION**

## AR-2500 感度 S/N

## AR2500 Sensitivity

受信周波数	SINAD 12dB	30dBIN S/N	受信周波数	SINAD 12dB	30dBIN S/N
N/PM 5.0MHz	+7 dB	34 dB	N/PM 515 MHz	-1 dB	31 dB
" 10 "	+4 "	35 "	" 525 "	- "	- "
" 15 "	+1 "	35 "	" 535 "	0 "	31 "
" 25 "	-4 "	35 "	" 545 "	+2 "	31 "
AM 25 "	+1 "	42 "	" 550 "	+4 "	31 "
" " AGC	SINAD12dBPOINT	ATT.ON	" 555 "	+6 "	31 "
	107dB	120dB	" 800 "	-1 "	33 "
N/PM 35 MHz	-5 dB	35 dB	" 850 "	-4 "	33 "
" 45 "	-5 "	35 "	" 950 "	-4 "	33 "
" 55 "	-5 "	35 "	" 1040 "	-1 "	33 "
" 85 "	-6 "	34 "			
" 75 "	-5.5 "	33 "			
" 85 "	-5 "	33 "			
W/PM 85 "	+4 "	50 "			
N/PM 95 "	-5 "	33 "			
" 105 "	-5.5 "	33 "			
AM 105 "	-1 "	41 "			
N/PM 115 "	-1 "	33 "			
" " "	-1 "	41 "			
N/PM 125 "	-5 "	33 "			
AM " "	-1 "	41 "			
N/PM 135 "	-5 "	33 "			
" 145 "	-5 "	33 "			
" 155 "	-5 "	33 "			
" 165 "	-5 "	33 "			
" 175 "	-5 "	33 "			
" 185 "	-5 "	33 "			
" 195 "	-5 "	33 "			
" 205 "	-5 "	33 "			
" 215 "	-4.5 "	33 "			
" 225 "	-5 "	33 "			
" 238 "	-5 "	33 "			
" 245 "	-5 "	33 "			
" 255 "	-5 "	33 "			
" 265 "	-4 "	33 "			
" 275 "	-4 "	33 "			
" 285 "	-4.5 "	33 "			
" 295 "	-4.5 "	33 "			
" 305 "	-4 "	33 "			
" 315 "	-4 "	33 "			
" 325 "	-4 "	33 "			
" 335 "	-4 "	33 "			
" 345 "	-4 "	33 "			
" 355 "	-4 "	33 "			
" 365 "	-4 "	33 "			
" 375 "	-3 "	33 "			
" 385 "	-3 "	33 "			
" 395 "	-3 "	33 "			
" 405 "	-3 "	33 "			
" 415 "	-3 "	33 "			
" 425 "	-3 "	33 "			
" 435 "	-3 "	33 "			
" 445 "	-3 "	33 "			
" 455 "	-3 "	33 "			
" 465 "	-3 "	33 "			
" 475 "	-3 "	33 "			
" 485 "	-2 "	33 "			
" 495 "	-2 "	33 "			
" 505 "	-1 "	33 "			

DSB. TUNE  $\Delta f$ 

メインシフト +4.74 KHz

Main Shift -2.35

ファインシフト +300 Hz

Fine Shift -380 Hz

AR2500

1. Select 900.000MHz, N/FM, 5KHz step.  
Set SSG frequency to 45.03MHz, 3KHz Dev.  
Adjust T3, T15, T16, T17, VC-5 for best SINAD point.
2. Select 900.005MHz, N/FM, 5KHz step.  
Set SSG frequency to 45.025MHz, 3KHz Dev.  
Adjust VC-4 for best SINAD point.
3. SINAD value should be the same on the both of above freq. selected.
4. Select 1040MHz, N/FM, 5KHz step.  
Set SSG frequency to 1040.000MHz, 3KHz Dev.  
Adjust VC-1 for best SINAD point.
5. Select 550.000MHz AM 25KHz step.  
Set SSG frequency to 550.000MHz, AM 60% mod.  
Adjust T4, T11, T12, VC2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, T18 for maximum AF output.
6. Select 540.000MHz AM 12.5KHz step. DSB switch on.  
Set SSG frequency 540.000MHz. No modulation.  
Adjust T600 coil on DSB PCB for 0 output of AF.  
(VR MIN.FIN are to be set as mid.)
7. Select 530.000MHz, W/FM, 5KHz step.  
Set SSG frequency 530.000, 30KHz Dev.  
Adjust T10, 13, 14, 6, 7, 8, 9 for best SINAD point.
8. Select 95.000MHz, N/FM. Turn SSG output off and adjust VR4 for one LED emitting.
9. Select 95.000MHz, N/FM, 5KHz step.  
Set SSG frequency 95.000MHz, 3KHz Dev. +6dB output.  
Adjust VR1 for 3 of these LED emitting.
10. Select 85.000MHz, 12.5KHz step, AM.  
Set SSG for 85.000MHz, 60% modulation, AM output +80dB and observe all LEDs are on, no distorted output wave. If distorted, adjust the VR1.
11. Select 75.000MHz, 25KHz step. W/FM.  
Set SSG Freq. for 75.000MHz 30KHz Dev. +16dB.  
Adjust VR2 for three of these LEDs are on.

## AR-2500

- 1) RS-232Cのコネクター結線は、下記の通りです。

RS232C Connections

7 ~~④~~ PIN CTS ~~(GREEN)~~  
 8 ~~④~~ " RTS ~~(ORANGE)~~  
 5 ⑤ " GND (BROWN)  
 2 ~~④~~ " RXD ~~(BLUE)~~  
 3 ~~④~~ " TXD ~~(YELLOW)~~

PIN, NO1, 4, 6は、NO WORKです。 PIN No. 1, 4, 6 not used.

- 2) 200~400MHzのサーチスピード Typical search speed 200-400MHz

5KHz STEEP時 16分30秒 16m 30sec

12.5KHz " 7分10秒 7m 10sec

25KHz " 3分35秒 3m 35sec

- 3) 感度の測定データ Sensitivity Data

別紙参照 See the last page

- 4) イメージ比 Image Ratio

① 860MHz帯	1ST (45.0125MHz)	3dB
	2nd (455KHz)	68dB
② VHF帯	1ST (750MHz)	測定不能
	2nd (45.0125MHz)	58dB
	3rd (455KHz)	83dB
③ VHF/W. FM	1ST (750MHz)	測定不能
	2nd (45.0125MHz)	83dB
	3rd (10.7MHz)	74dB

A couple of points worth noting on the AR2500 are:

1. The operating manual gives quite a lot of detail about computer control but does NOT show the connections

Pin 2 CTS  
Pin 3 RTS  
Pin 5 GND  
Pin 7 RXD  
Pin 8 TXD

We are currently working with a UK software author with the aim of producing a high-performance IBM-PC based program within the next 2 months or so. The target price is £49.00 pounds.

At this time the only software available in the world is from the USA priced at \$399.

We are looking at ways of improving the operating manual and may consider a re-write.

2. The visibility of the display is poor from certain angles, an improvement can be made by lifting the front of the set. We have received a 'sample ball' from Japan similar in design to that supplied with the Kenwood TR9130. We hope this will be included with future shipments.

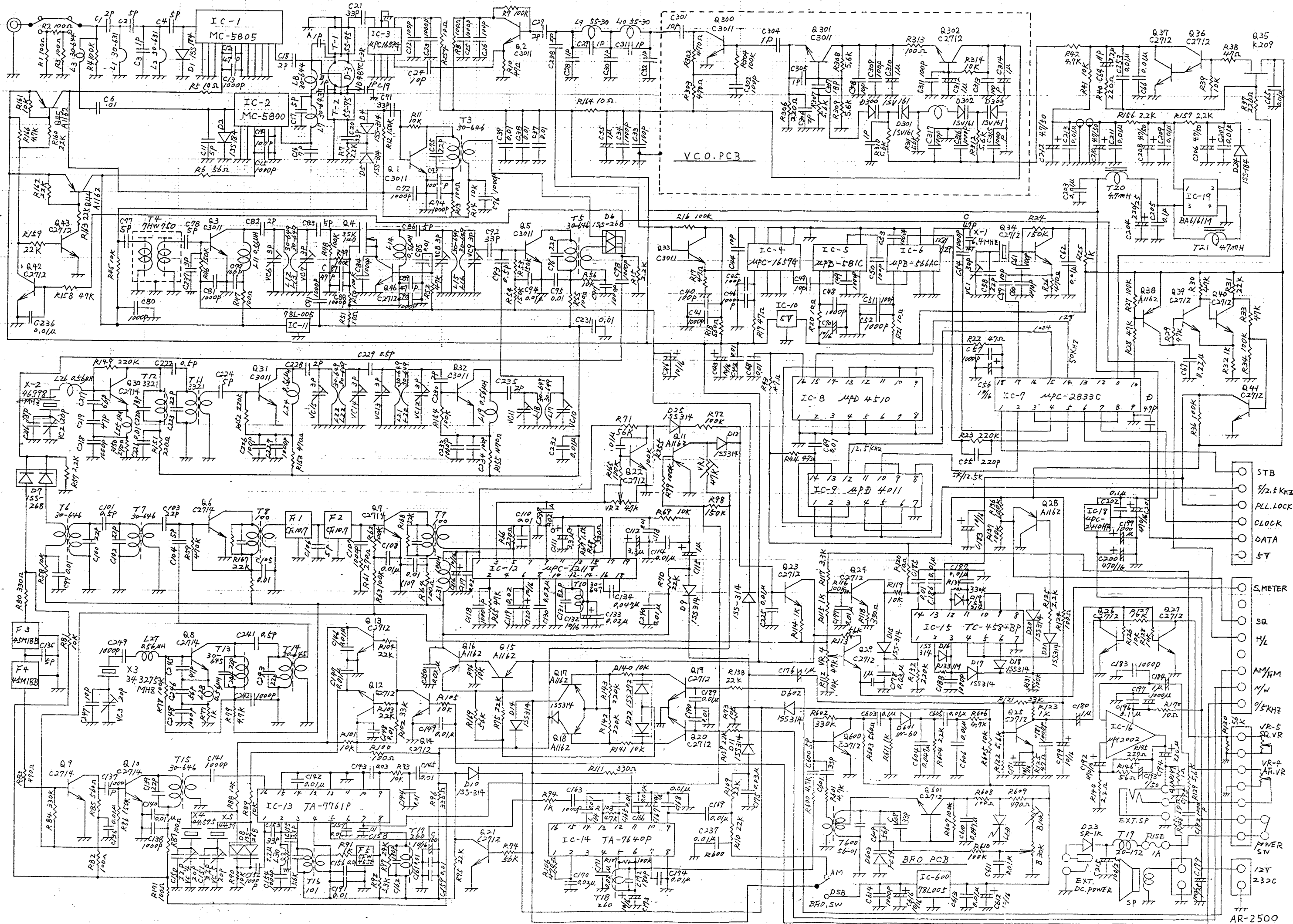
3. The lamp is very low intensity and will only be visible during night-time operation.

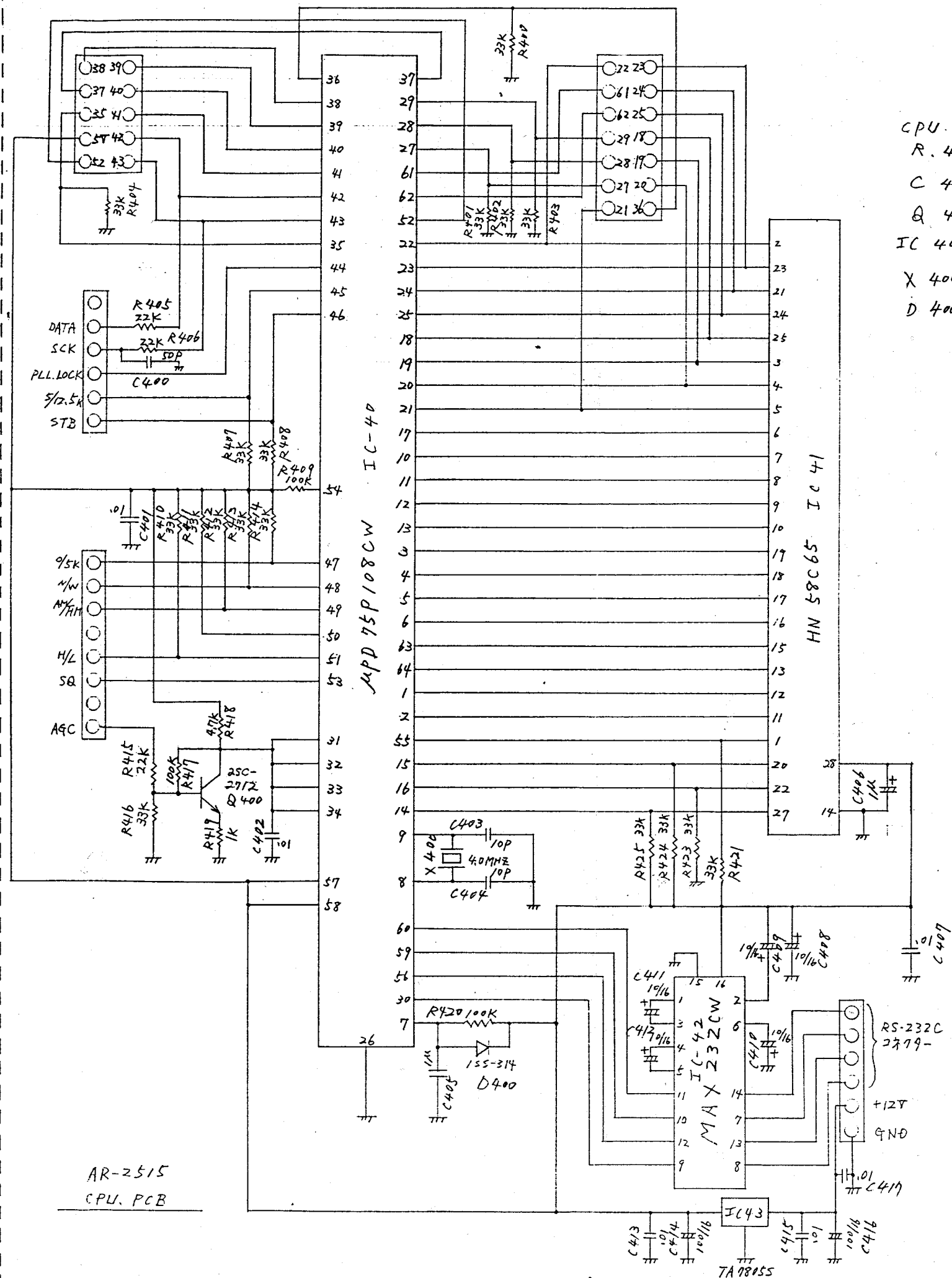
4. There is NO MANUAL MODE as such, instead you must use the program search facility as described in the operating manual. Program memory 63 and above with upper limit, lower limit, mode and step.

Due to the RESORTING procedure used by the microprocessor to ensure high search speed, the operating of the rotary tuning control is compromised in the anti-clockwise (downward) direction. This is normal for this model and does not constitute a fault.

5. As you will already be aware, the AR2500 has a specification change since our pre-production model on which our advertising was based. The coverage is now stated as 5 MHz to 550 MHz plus 800 MHz to 1300 MHz, and not as stated earlier (500 kHz - 1500 MHz).

6. Often a thin plastic film is placed across the keypad and/or display to add protection (it varies from set to set). This should if possible be pointed out to the customer. Often the set is thought to be scratched where in reality it has marks in the plastic protective film.

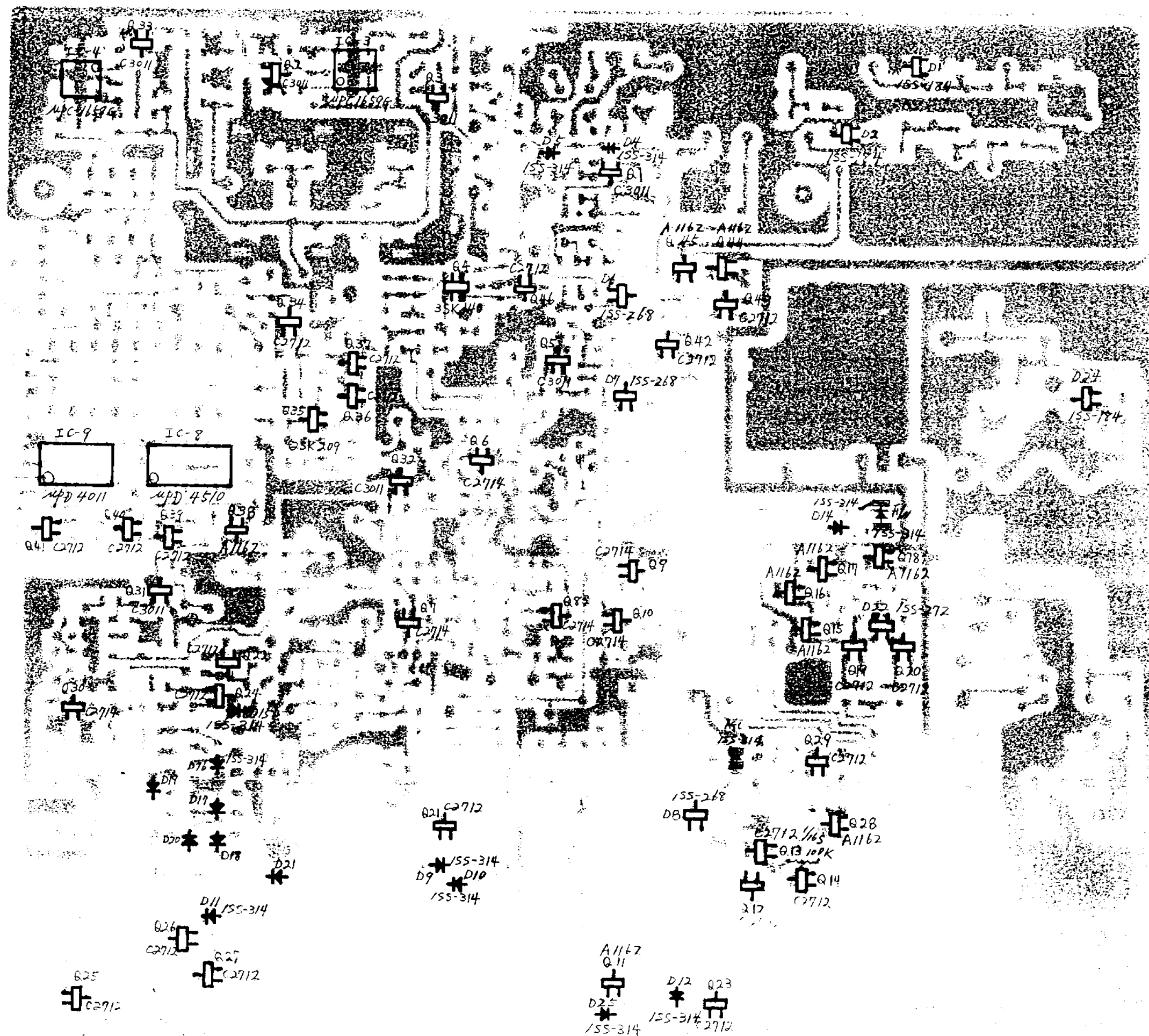




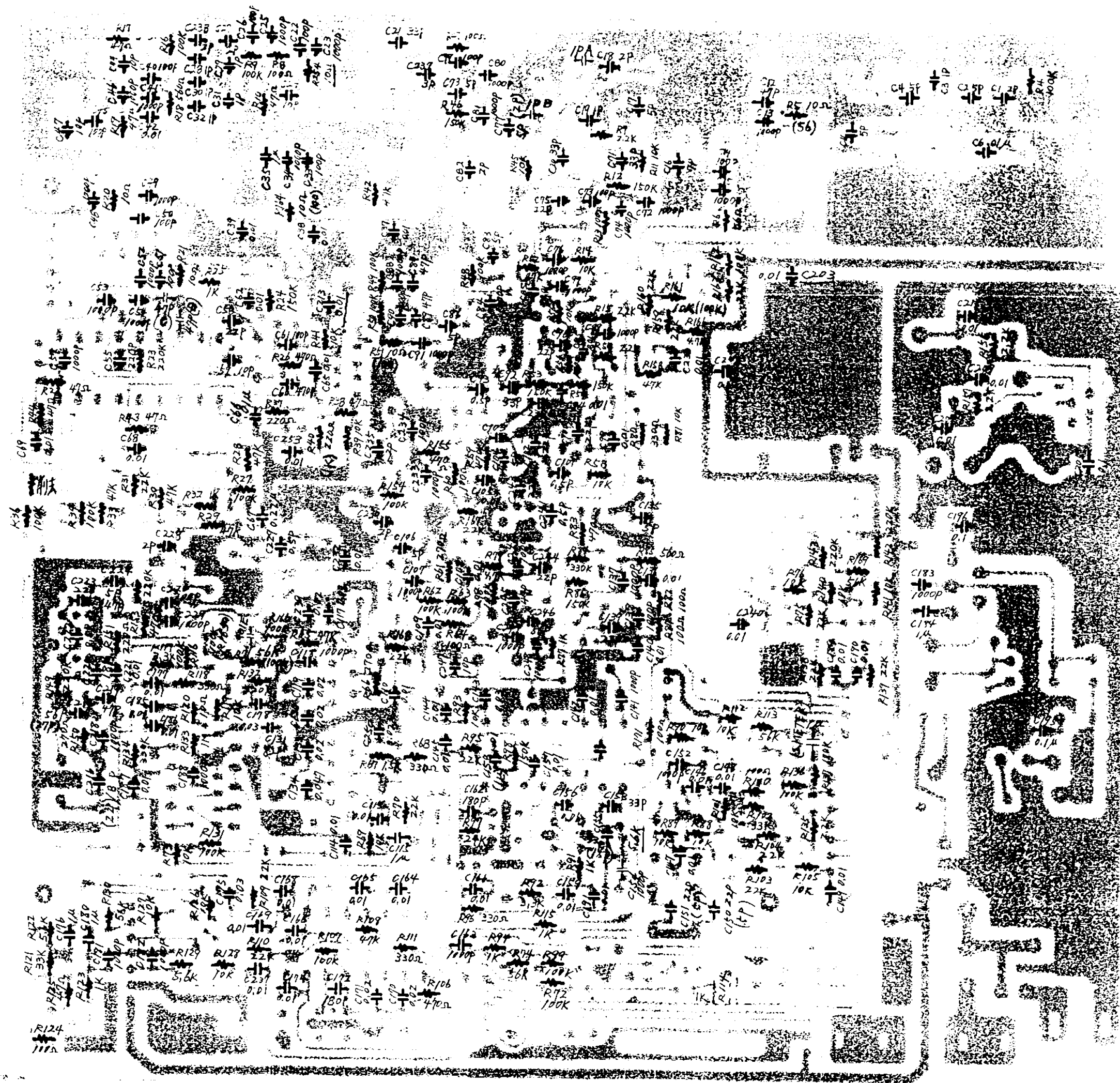
5

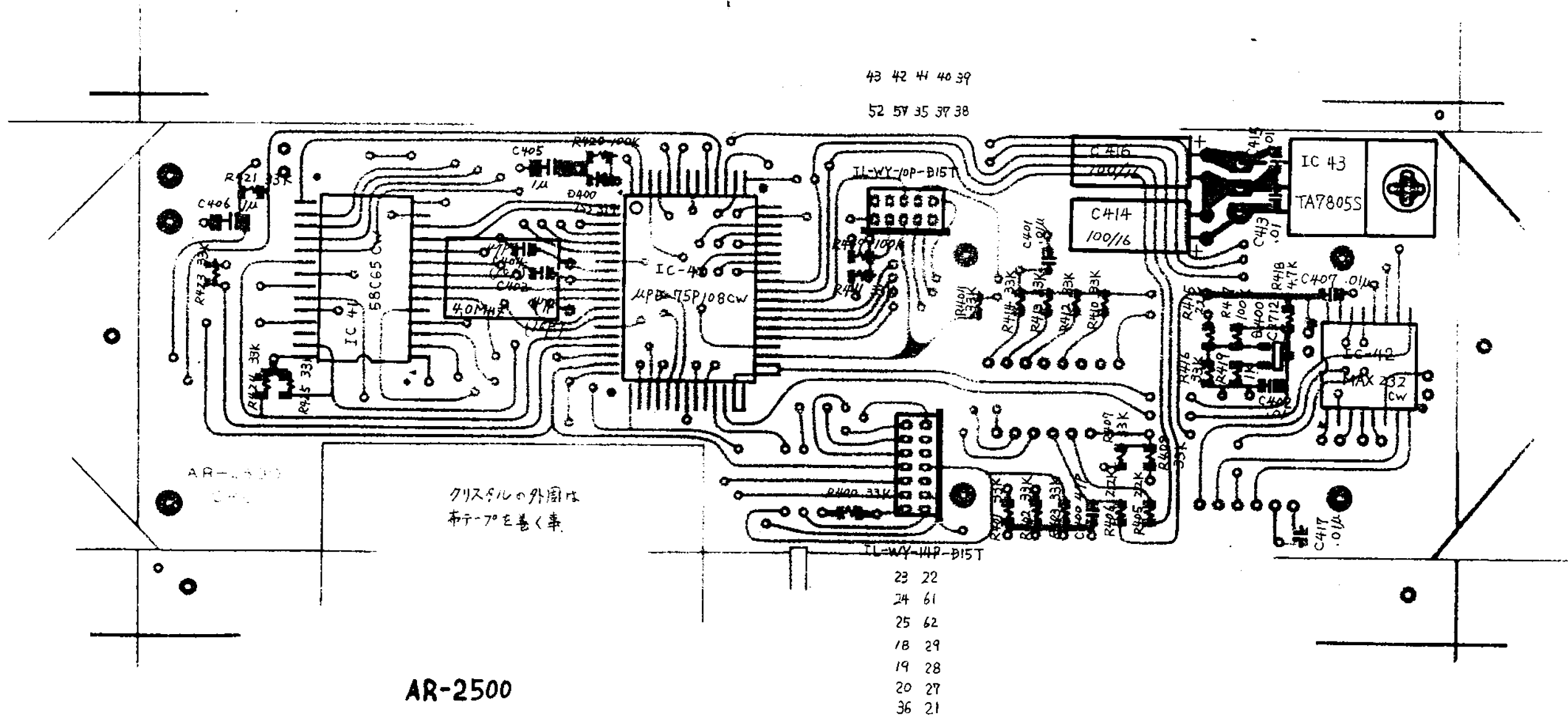






( ) 表字ロ 変更ナ所デナ



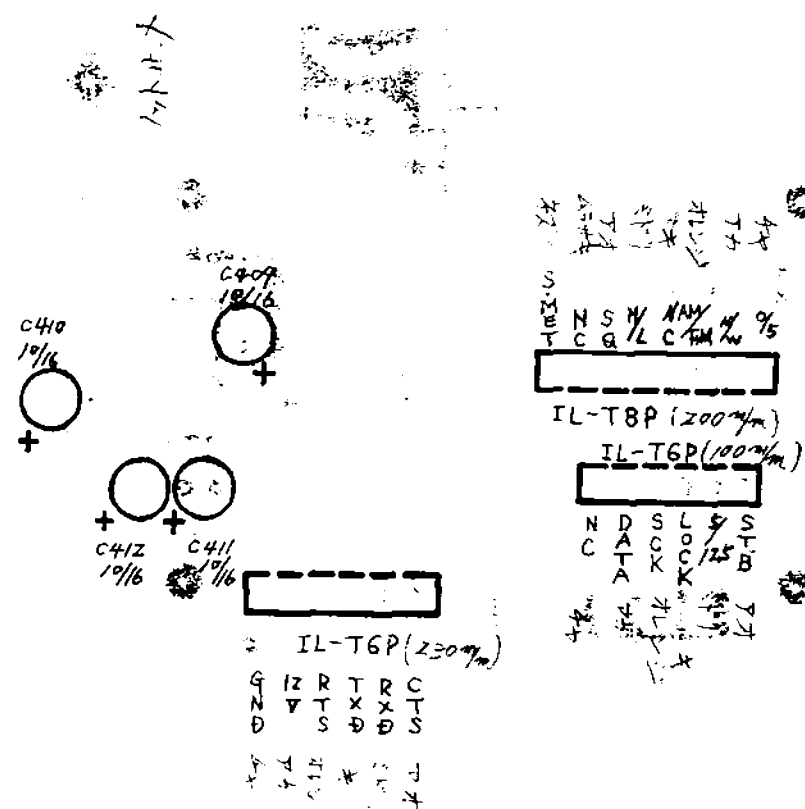


AR-2500  
CPU. PCB  
ハンダ面 配置図  
H2.4.11  
日生技研 (株)

AR-2500 CPU  
t = 1.6 2/1 寸  
日生技研 (株)

N-CC-203

ハンダ面 平成2年2月26日 9

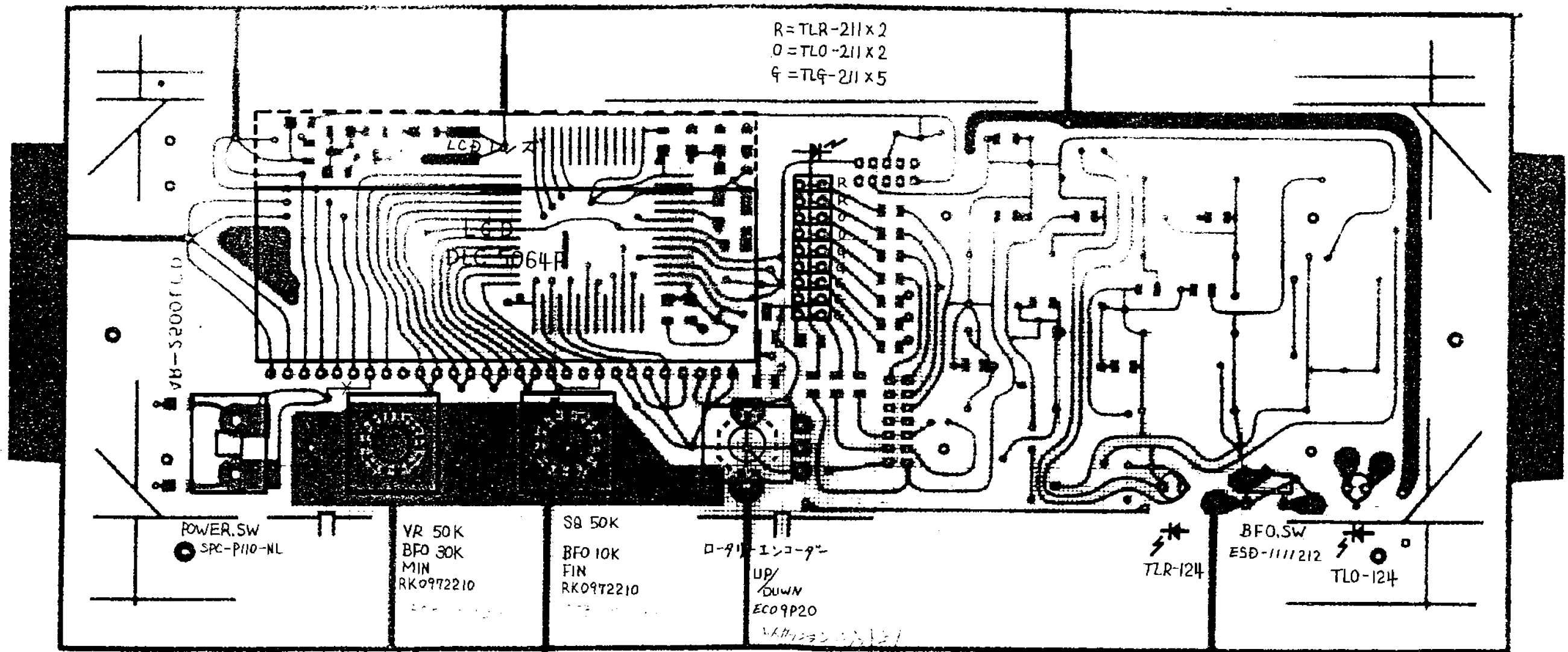


(C408は削去した)

IPS-1032  
EDP No 19619004

IPS-1032  
EDP No 19619004

AR-2500  
CPU. PCB  
部品面 配置図  
H2.4.11 H2.12.28  
日生技研(株)

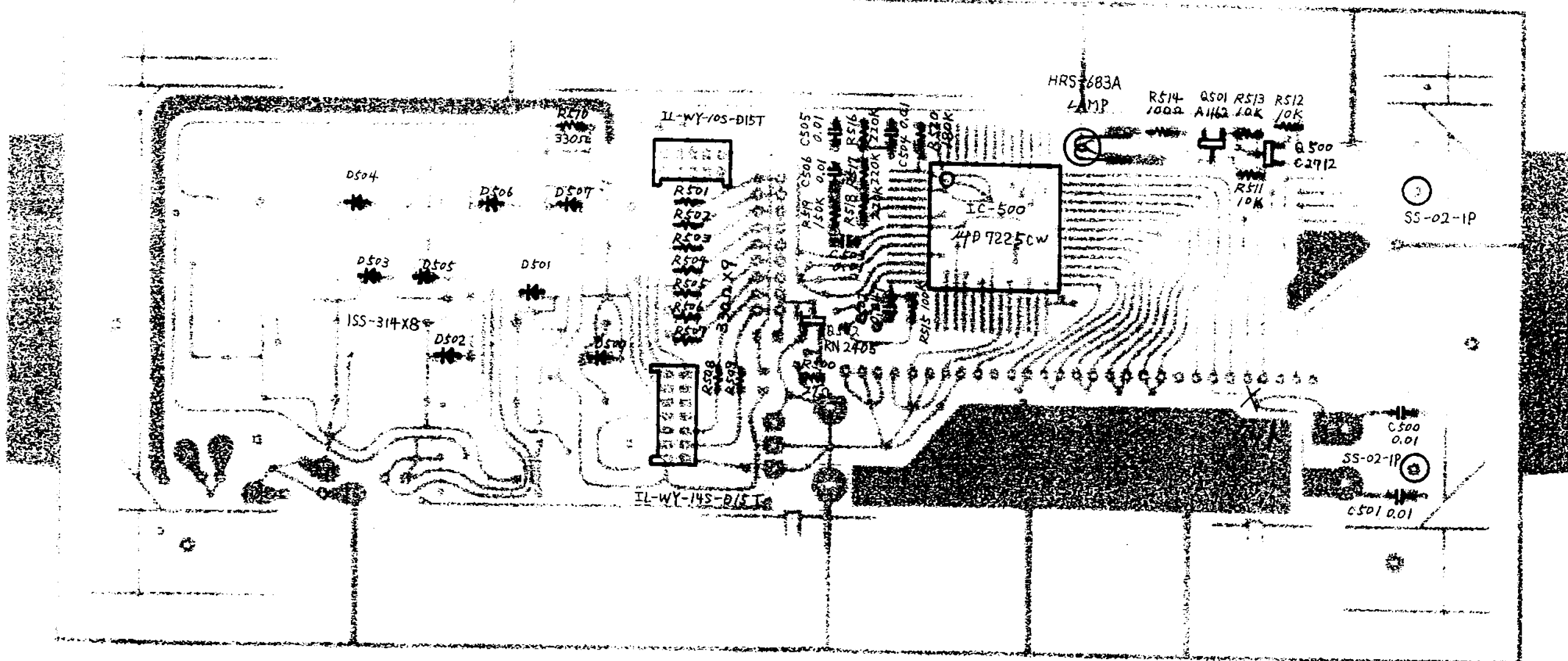


~~AR-2500 LCD.PCB~~  
 AR-2500 LCD.PCB  
 2.1=3  
 50C-00-N 1/5

面A/L/H

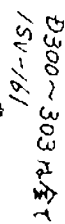
AR-2500  
 LCD.PCB  
 部品面  
 H2.4.11  
 B生技研(株)

注.TLR-124 TL0-124は 12.7mm  
 高さを入ル 高さに注意する事  
 H2.12.28



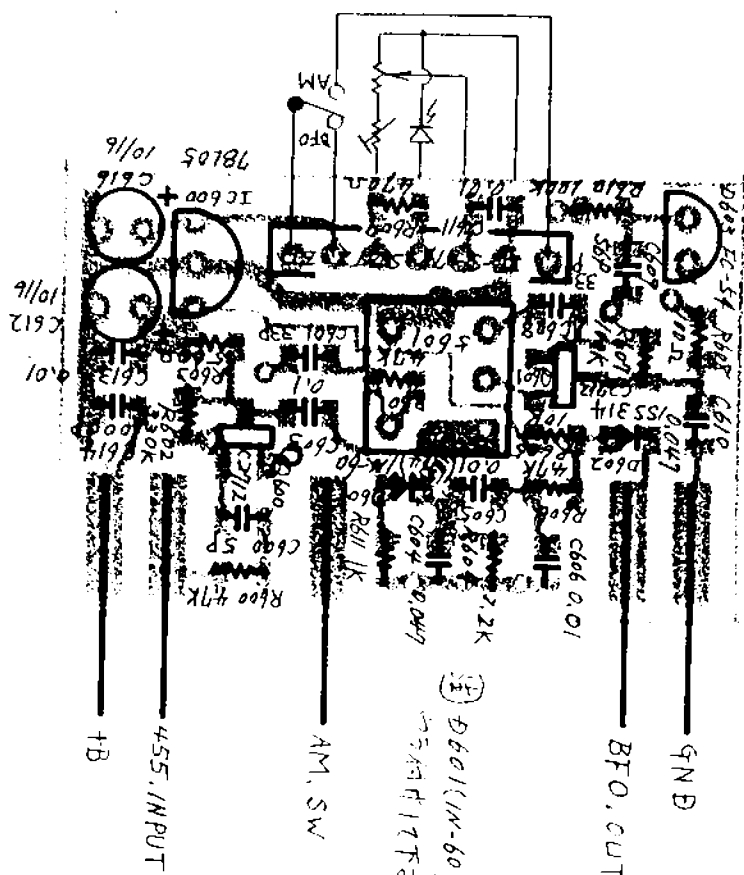
AR-2500  
LCD PCB  
ハンダ面  
H2.4.11  
日産技研(株)

~~AR-2500 to LCD~~  
L=16 AR-2500LCD  
4/7 H-00-20



1944 1944  
有127. (C304)

底心 D300.0744-1  
7-2 間で。



① D601 (IN-60) 2  
→ 47 17 下式、

42 12. 28 1966

バック面

